

Appl. No. 10/510,525
Response dated April 13, 2006
Response to Final Office action of January 13, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A subsea process assembly for separating a multiphase flow, the assembly comprising:

- an inlet for the multiphase flow;
- a pressure reducing means for reducing the pressure of the multiphase flow from the inlet and creating a source of energy;
- a multiphase separator for separating the multiphase flow into individual phases;
- a pumping system for, in use, pumping at least one of the desired individual phases to a delivery point; and
- a power supply system ~~for that uses the source of energy from the pressure reducing means to selectively supplying the source of energy supply power to the pumping system.~~

2. (original) A subsea process assembly according to claim 1, wherein the pressure reducing means is one of a hydraulic power device, electric power drive and a flow controller.

3. (previously presented) A subsea process assembly according to claim 1, further comprising a control process module for controlling the pressure reducing means and the pumping system.

4. (previously presented) A subsea process assembly according to claim 1, wherein the power supply system comprises a power drive unit that generates hydraulic power from an external energy source.

5. (original) A subsea process assembly according to claim 4, wherein the external energy source is either in the form of fluid or electrical energy.

6. (previously presented) A subsea process assembly according to claim 5, wherein the power drive unit is driven by a fluid that provides energy in the form of liquid or gas.

Appl. No. 10/510,525
Response dated April 13, 2006
Response to Final Office action of January 13, 2006

7. (currently amended) A subsea process assembly according to claim 6, wherein the source of energy is achieved by creating a pressure differential in the multiphase flow between the inlet and the multiphase separator.

8. (previously presented) A subsea process assembly according to claim 1, further comprising a drive fluid inlet, a drive fluid being pumped to the module from an external point.

9. (previously presented) A subsea process assembly according to claim 8, wherein the pressure reducing means further comprises a means for creating a pressure differential in the drive fluid and thereby creating a further source of energy.

10. (previously presented) A subsea process assembly according to claim 8, wherein the drive fluid is water from a water injection supply.

11. (previously presented) A subsea process assembly according to claim 1, wherein the pressure of the multiphase flow is reduced to below 25 atmospheres.

12. (previously presented) A subsea process assembly according to claim 1, wherein the multistage separator can be formed by at least one of the following: a centrifugal container, a vortex tube, a cyclone, helix container or auger, a gravity vertical or horizontal tank, a silo, a conductor pile housing, toroidal ring, a toroidal spiral combination or a spiral.

13. (previously presented) A subsea process assembly according to claim 1 wherein the separating process can separate the multiphase fluid into at least two of the following: a solids slurry, gas, oil and water.

14. (previously presented) A subsea process assembly according to claim 1, further comprising an individual pump for each phase.

15. (original) A subsea process assembly according to claim 14, wherein the individual phase pumps are driven by the energy created in the assembly.

Appl. No. 10/510,525
Response dated April 13, 2006
Response to Final Office action of January 13, 2006

16. (previously presented) A subsea process assembly according to claim 1 further comprising of a solids removal unit for removing a solids slurry prior to separation.

17. (previously presented) A subsea process assembly according to claim 1, further comprising a means for, in use, injecting exhaust water into a well.

18. (previously presented) A subsea process assembly according to claim 1, further comprising a template, a piping mat and a retrievable subsea process module.

19. (original) A subsea process assembly according to claim 18, wherein the retrievable subsea process module comprises a retrievable base module and retrievable mini modules.

20. (currently amended) A subsea hydrocarbon recovery system comprising:
a subsea well for supplying a multiphase flow comprising a hydrocarbon;
a subsea process assembly comprising
an inlet for the multiphase flow;
a pressure reducing means for reducing the pressure of the multiphase flow from the inlet and creating a source of energy;
a multiphase separator for separating the multiphase flow into individual phases;
and
a pumping system for, in use, pumping at least one of the desired individual phases to a delivery point, wherein the inlet to the assembly is in fluid communication with the well;
a power supply system that uses the source of energy from the pressure reducing means to selectively supplying the source of energy supply power to the pumping system; and
a delivery point for receiving the recovered hydrocarbon(s) from the subsea process assembly.

Appl. No. 10/510,525
Response dated April 13, 2006
Response to Final Office action of January 13, 2006

21. (original) A subsea hydrocarbon recovery system according to claim 20, further comprising a well into which surplus products of the separation can be reinjected.

22. (previously presented) A subsea hydrocarbon recovery system according to claim 20, further comprising a plurality of subsea wells, each having an associated subsea process module which supplies the recovered hydrocarbon(s) to the same delivery point.

23. (previously presented) A subsea hydrocarbon recovery system according to claim 20, wherein the delivery point is one of: a pipeline for removing the product from the field, a water injection well, a gas injection well or a producing well to achieve artificial lift.